



Monitoring water quality
in coastal waters



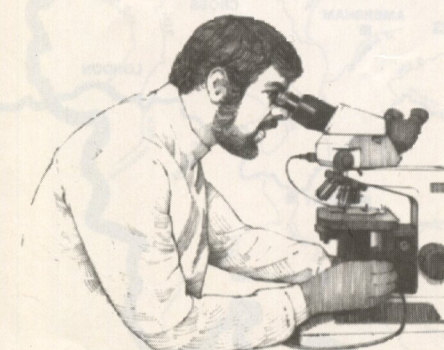
Routine checking of
river water quality



Sampling discharges from
sewage treatment works



Working with industry to
check effluent standards



Analysing water samples
to check quality standards

Fact File- POLLUTION CONTROL

The National Rivers Authority is responsible for safeguarding and improving the natural water environment. One of its main aims is to achieve a continuing improvement in the quality of our country's river systems and groundwater.

We all need water to live, water for our homes, for industry, and for farming. Our rivers also provide habitats for diverse communities of plants and animals and provide pleasure and recreation for us all.



NRA

*National Rivers Authority
Thames Region*

A river or stream that becomes badly polluted may not only look and smell offensive, but might also pose a serious threat to wildlife and the people who come into contact with it. Protecting our rivers and groundwater from damaging pollution is essential for the well being of us all.

Rivers form an area's natural drainage system and so provide an efficient and effective means of disposing of waste water. Their diluting capacity means they easily cope with some contaminants which can be broken down by natural processes. However, these effluents must be treated to a standard which ensures the quality of water for wildlife and other users.

The NRA controls and monitors effluent discharges to ensure a river does not become overloaded with waste solids, heat, oil or other toxic substances which will disturb its natural balance.

The most common types of pollution are due to high concentrations of biochemical oxygen demand (BOD), ammonia, silt and oil. Pesticides and solvents are also increasingly affecting groundwaters.

WHERE DOES POLLUTION COME FROM?

The high population in the Thames Valley results in considerable volumes of sewage which is treated to a high standard before it is allowed to enter our rivers.

Industry produces waste in food processing, paper and board making, power generation and many other processes, and each creates its own special disposal and treatment challenges.

In rural areas farming can be a potential cause of pollution. Manure and slurry result from livestock and if silage is made, extreme care has to be taken with any waste liquid which can be many times more damaging to a river than sewage.

Careless or excessive use of chemicals, including pesticides and fertilisers, by farmers can also create problems. The chemicals can soak through the soil into groundwater or run off into rivers so damaging river life and polluting water drawn from wells and boreholes.

Uncontrolled tipping of waste onto land can cause contamination of rivers and groundwater, as can spillages of chemical or oil from factories, in transport accidents, fires or from leaking tanks.

Wrong connections on drainage systems are a major problem in urban areas of the Thames catchment, particularly in London, with dirty water being connected to the clean or surface water services.

A wrong connection may be something as minor as a washing machine incorrectly plumbed in or as major as a whole street's foul sewer connected to the surface water system. Thoughtless disposal of household detergents, bleaches, garden chemicals and pesticides can also harm the environment.

Foremost among the responsibilities of the NRA is the protection of our rivers and groundwaters and the improvement of those which are currently of a poor quality.

Pollution incidents can be reported during office hours to your nearest pollution control office.

Amersham (0494) 722361
London S E 081 310 5500
Guildford (0483) 577655
Oxford (0865) 749400
Reading (0734) 311422
Waltham Cross (0992) 635566

.. or at all times on Freefone 0800-252768

The disposal of effluent into rivers or groundwater needs a discharge consent from the NRA. These consents include conditions on the volume and chemical composition of the effluent in order to ensure that the waters meet quality classification.

The NRA carries out regular checks of the waters within its control and the discharges to them. Over 30,000 chemical samples are taken each year in the Thames region together with nearly 1,000 biological samples. If a sample does not meet the quality classification or consent standard appropriate action is taken. The NRA is a tough, but fair, regulator of water quality, and does not hesitate to prosecute persistent polluters. However, it aims to work with the water companies, farmers, industry and the public to stop pollution happening in the first place. Despite this, there are still thousands of reports of pollution each year.

To carry out this work the NRA has a team of specialists whose role it is to prevent pollution, to monitor water quality and to organise cleaning up after a pollution incident. The NRA has its own laboratories equipped with the most up to date technology for examining water samples. At the Thames Region's laboratory at Fobney Mead, Reading over 30,000 chemical samples are analysed each year.

The biological study of the small animals that inhabit the river bed provides information which enables scientists to assess water quality. The creatures present are unable to move far and respond to water conditions throughout the year. Pollution changes the types of animal found and their numbers. This can help identify a pollution that might otherwise have been missed by chemical sampling.

The National Rivers Authority Thames Region covers 12,900 square kms and over 5,000 km of river. Its officers cannot patrol everywhere all the time. Therefore it relies on the public reporting pollution problems.

There is a 24-hour phone line so that anyone who sees dead fish, oil, anything being dumped into the rivers or any other sign of pollution can ring the National Rivers Authority - whatever the time of day or night - and action can be taken quickly to help and catch the polluter.

